

CLAIMS

We claim:

1. A computer-implemented method of generating a componentized user interface, the method comprising:
 - (a) providing a first set of interface elements with a framework;
 - (b) providing a second set of interface elements with a first plug-in that is linked to the framework;
 - (c) providing a third set of interface elements with a second plug-in that is linked to the framework;
 - (d) hosting the first plug-in and the second plug-in with a shell linked to the framework, and
 - (e) providing an interface between the shell and the first plug-in and between the shell and the second plug-in with a shell adapter interface, in order to utilize the second set of interface elements and the third set of interface elements.
2. The computer-implemented method of claim 1, wherein the first plug-in comprises:
 - (i) a first file that provides an interface between the framework and the first plug-in; and
 - (ii) a second file written in a markup language and that includes menu elements.
3. The computer-implemented method of claim 2, wherein the menu elements are selected from the group consisting of a toolbar, a status bar, and a menu bar.
4. The computer-implemented method of claim 1, wherein the second plug-in comprises:

- (i) a first file that provides an interface between the framework and the second plug-in; and
- (ii) a second file written in a markup language and that includes menu elements.

5. The computer-implemented method of claim 4, wherein the menu elements are selected from the group consisting of a toolbar, a status bar, and a menu bar.
6. The computer-implemented method of claim 1, wherein the framework is configured to discover the first plug-in and the second plug-in.
7. The computer-implemented method of claim 6, wherein the framework further comprises a user interface component loader to load the first plug-in and the second plug-in.
8. The computer-implemented method of claim 2, wherein the first file comprises an executable file and the second file comprises an extensible markup language (XML).
9. The computer-implemented method of claim 2, wherein the first file comprises an executable file and the second file comprises a standard generalized markup language (SGML).
10. The computer-implemented method of claim 4, wherein the first file comprises an executable file and the second file comprises an extensible markup language (XML).
11. The computer-implemented method of claim 4, wherein the first file comprises an executable file and the second file comprises a standard generalized markup language (SGML).

12. The computer-implemented method of claim 1, wherein the framework is configured to provide the first set of interface elements for a plurality of applications
13. The computer-implemented method of claim 1, wherein the second set and the third set of interface elements comprise interface elements for the same application.
14. The computer-implemented method of claim 1, wherein the second set of interface elements comprises interface elements for a first application and the third set of interface elements comprise interface elements for a second application that is different from the first application.
15. A computer implemented method of providing extensibility to a user interface, the method comprising:
 - (a) providing a framework, the framework comprising a first set of interface elements and a user interface component loader, the framework configured to discover a plug-in located in a plug-in directory;
 - (b) loading the plug-in with the user interface component loader, the plug-in to provide a second set of interface elements;
 - (c) hosting the plug-in with a shell linked to the framework; and
 - (d) providing an interface between the shell and the plug-in with a shell adapter interface in order to utilize the second set of interface elements.
16. The computer-implemented method of claim 15, wherein the plug-in comprises:
 - (i) a first file that provides an interface between the framework and the plug-in; and
 - (ii) a second file written in a markup language and that includes menu elements.

17. The computer-implemented method of claim 16, wherein the menu elements are selected from the group consisting of a toolbar, a status bar, and a menu bar.
18. The computer-implemented method of claim 16, wherein the first file comprises an executable file and the second file comprises an extensible markup language (XML).
19. The computer-implemented method of claim 16, wherein the first file comprises an executable file and the second file comprises a standard generalized markup language (SGML).
20. The computer-implemented method of claim 15, wherein the framework is configured to provide the first set of interface elements for a plurality of applications.
21. The computer-implemented method of claim 15, wherein the method further comprises:
- (e) loading a second plug-in with the user interface component loader, the second plug-in to provide a third set of interface elements;
 - (f) hosting the second plug-in with a shell linked to the framework; and
 - (g) providing an interface between the shell and the second plug-in with a second shell adapter interface in order to utilize the third set of interface elements.
22. The computer-implemented method of claim 21, wherein the second set and the third set of interface elements comprise interface elements for the same application.
23. The computer-implemented method of claim 21, wherein the second set of interface elements comprises interface elements for a first application and the third set of interface

elements comprise interface elements for a second application that is different from the first application.

24. In a computer system having a graphical user interface including a display and a user interface selection device, a method of providing and selecting from a menu on the display, comprising the steps of:

- (a) providing a first set of interface elements with a framework;
- (b) retrieving a plug-in from a plug-in directory, the plug-in to provide a second set of interface elements, the plug-in capable of being utilized in a plurality of shells through the use of an adapter;
- (c) displaying the plug-in on the display;
- (d) receiving a plug-in selection entry signal indicative of the user interface selection device pointing at the plug-in on the display and in response executing the plug-in; and
- (e) displaying at least a menu element associated with the plug-in.

25. The method of claim 24, wherein the menu element is selected from the group consisting of a toolbar, a status bar, and a menu bar.